

**ABSTRACT**

A preferred embodiment of a three-phase transformer includes a first, a second, and a third winding leg, and a first, a second, and a third winding positioned around the respective first, second, and third winding legs. The first, second, and third windings each includes an electrical conductor wound into a plurality of overlapping layers each formed by a plurality of adjacent turns of the electrical conductor, and an insulating material without end fill positioned between each of the overlapping layers. The electrical conductor has a transition portion formed therein between a first and a second of the overlapping layers. The transition portion is at least one of bent to form an offset in the electrical conductor, and secured to at least one of the plurality of adjacent turns.